U.S. NUCLEAR WASTE TECHNICAL REVIEW BOARD

FISCAL YEAR 2026
Annual Performance Plan

INCLUDING BOARD PERFORMANCE AND MANAGEMENT GOALS FOR FISCAL YEAR 2026

AND

EVALUATION OF BOARD PERFORMANCE IN FISCAL YEAR 2024

MAY 2025

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U.S. NUCLEAR WASTE TECHNICAL REVIEW BOARD

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INTRODUCTION

The U.S. Nuclear Waste Technical Review Board (Board) is an independent agency in the Executive Branch of the federal government. The Board performs ongoing and objective peer review of the technical and scientific validity of activities undertaken by the Secretary of Energy under the Nuclear Waste Policy Act (NWPA) (Public Law 97-425), as amended, including the packaging, transportation, and disposal of spent nuclear fuel (SNF) and high-level radioactive waste (HLW). The Board provides a source of independent expert advice to the Department of Energy (DOE) and the Congress on technical issues and reviews DOE's efforts to implement the nuclear waste program.

Contained in this report is the Board's Performance Plan for FY 2026 and the Board's evaluation of its FY 2024 performance.

MISSION STATEMENT

The mission of the Board is to provide independent expert evaluation of the technical and scientific validity of U.S. Department of Energy activities related to the packaging, storing, transporting, and disposing of spent nuclear fuel and high-level radioactive waste.

ABOUT THE BOARD

The U.S. Nuclear Waste Technical Review Board is an independent agency in the executive branch of the federal government. The Board is comprised of eminent scientists and engineers nominated by the National Academy of Sciences and appointed by the President. It is supported by highly qualified professional staff.

The Board was established in the Nuclear Waste Policy Amendments Act of 1987 (NWPAA) to "...evaluate the technical and scientific validity of activities [related to managing and disposing of spent nuclear fuel and high-level radioactive waste] undertaken by the Secretary [of Energy], including

(1) site characterization activities; and

(2) activities relating to the packaging or transportation of high-level radioactive waste or spent nuclear fuel."

According to the legislative history of the NWPAA, the purpose of the Board is to provide a source of independent expert advice to DOE and Congress on technical issues and to review DOE's efforts to implement the nuclear waste program. In order to provide timely feedback, the Board is expected to review DOE's activities as they occur, rather than after the fact. As the Administration and Congress decide on a path forward for the disposition of nuclear waste, DOE continues to have responsibility under the Nuclear Waste Policy Act for managing and disposing of nuclear waste, and the Board's statutory responsibility for evaluating DOE's implementation of those activities remains unchanged. By performing unbiased and ongoing technical and scientific peer review of DOE's nuclear waste management activities, the Board makes an essential contribution to increasing confidence in

the scientific process and to informing, from a technical and scientific perspective, decisions on the nuclear waste program. The Board reports its findings, conclusions, and recommendations to the Secretary of Energy and Congress.

BOARD STRATEGIC OBJECTIVES FOR FYS 2022 THROUGH 2026

The Board established three Strategic Objectives in its Strategic Plan for FY 2022 through 2026. The Strategic Objectives reflect the Board's continuing commitment to its mission established in the NWPAA, including (1) conducting an ongoing, independent technical and scientific evaluation of DOE activities related to the NWPA and (2) advising Congress and the Secretary.

During FYs 2022 through 2026, the Board will:

1) continue its evaluation of DOE activities related to implementation of the NWPA and relevant amendments to that Act. Based on its evaluation, the Board will report its findings, conclusions, and recommendations to Congress and the Secretary.

2) develop objective technical and scientific information that will be useful to policy makers in Congress and the Administration on issues related to SNF and HLW management and disposal. The Board will communicate such information to Congress and the Secretary in letters, reports, and testimony.

3) compile information and report to Congress and the Secretary on its findings, conclusions, and recommendations from experience gained during 35 years of reviewing the U.S. nuclear waste management and disposal program and from observing waste management efforts in other countries.

PERFORMANCE PLAN FOR FY 2026

STRATEGIC OBJECTIVES AND PERFORMANCE GOALS FOR FY 2026. Presented below are the Board's Strategic Objectives for FYs 2022 through 2026, followed by the relevant PGs for FY 2026. Both the Strategic Objectives and the PGs reflect the goals of the agency leadership and are outcome oriented.

STRATEGIC OBJECTIVE #1: *The Board will continue its evaluation of DOE activities related to implementation of the NWPA and relevant amendments to that Act. Based on its evaluation, the Board will report its findings, conclusions, and recommendations to Congress and the Secretary.*

PERFORMANCE GOALS FOR FY 2026

PG 1-A: In FY 2026, the Board plans to continue its evaluation of DOE activities to develop a federal consolidated interim storage facility for SNF, including the use of a collaborative-based siting approach.

PG 1-B: In FY 2026, the Board plans to review the technical issues DOE will need to address before it can begin the implementation of an integrated program for the nationwide transport of SNF and HLW.

STRATEGIC OBJECTIVE #2: *The Board will develop objective technical and scientific information that will be useful to policy makers in Congress and the Administration on issues related to SNF and HLW management and disposal. The Board will communicate such information to Congress and the Secretary in letters, reports, and testimony.*

PERFORMANCE GOALS FOR FY 2026

PG 2-A: In FY 2026, the Board plans to review DOE activities related to management and disposal of DOE-owned SNF and HLW.

PG 2-B: In FY 2026, the Board plans to evaluate DOE research and development on storage and transportation of commercial SNF and HLW.

PG 2-C: In FY 2026, the Board plans to evaluate DOE research and development on disposal of commercial SNF and HLW.

STRATEGIC OBJECTIVE #3: *The Board will compile information and report to Congress and the Secretary on its findings, conclusions, and recommendations from experience gained during 35 years of reviewing the U.S. nuclear waste management and disposal program and from observing waste management efforts in other countries.*

PERFORMANCE GOALS FOR FY 2026

PG 3-A: In FY 2026, the Board will continue its efforts to identify lessons-learned during site selection processes, such as those in Germany, the UK, and Japan—lessons that can be applied to the U.S. program.

PG 3-B: In FY 2026, the Board will continue its efforts to identify lessons-learned during licensing, construction, and commencing operations at nuclear waste repositories in other countries, such as Sweden and Finland—lessons that can be applied to the U.S. program.

PG 3-C: In FY 2026, the Board will continue to monitor SNF and HLW research and management activities in other countries and in international collaborations.

MANAGEMENT GOALS FOR FY 2026. To enhance the effectiveness and efficiency of Board activities supporting its Strategic Objectives and PGs, the Board has identified the following MGs for FY 2026:

MG-1: The Board will continue to implement actions to optimize organizational efficiency and accountability and maximize employee performance.

MG-2: The Board will identify any potential constraints on the agency's ability to perform its mission and implement the changes that may be necessary for mitigating such constraints through proactive management and allocation of resources.

MG-3: The Board will continue to maintain effective communication among its geographically dispersed Board members. The Board will also facilitate communication among Board members and with the professional and administrative staff members who support the Board's technical and scientific review of DOE activities from the Board offices located in Arlington, Virginia.

MG-4: The Board will continue webcasting its meetings and making available archived recordings of the webcasts on its website. Furthermore, the Board will continue to utilize its office resources located in Arlington, Virginia, to foster collaboration with internal and external stakeholders.

MG-5: The Board will continue to conduct its ongoing reviews in the most cost-effective means possible. The Board will use videoconferencing to hold its meetings in a hybrid format (virtual and in-person), to the extent this can be done without reducing the effectiveness of the meetings concerned.

MG-6: The Board will take action to pass on institutional memory and expertise to succeeding Board members and staff. When appropriate, the Board may also provide opportunities for one or more undergraduates or graduate students in disciplines related to the Board's activities to support the Board's technical staff in performing information research and technical analysis.

MG-7: The Board will update its technical resources and capabilities, as necessary, to maintain and improve the core competencies of its staff. The Board will identify, recruit when necessary, and retain highly qualified professionals with the expertise and related knowledge needed to support the work of the Board members and to help the Board achieve its Strategic Objectives and PGs.

BOARD ATTRIBUTES, ACTIVITIES, AND PRACTICES SUPPORTING THE ACHIEVEMENT OF THE STRATEGIC OBJECTIVES AND PERFORMANCE GOALS. The following attributes, activities, and practices support the implementation of the Board's ongoing peer review and reflect the Board's commitment to its core values of objectivity, openness, technical and scientific rigor, and timeliness.

AUTHORITY UNDER THE LAW. The Board has the necessary authority, under current law, to achieve its Strategic Objectives and PGs.

CULTURE OF ACCOUNTABILITY. Analyses of DOE's technical and scientific work are performed by Board members who are appointed by the President from a list of nominees submitted by the National Academy of Sciences. The Board members are eminent experts in their fields and serve part-time. They are supported by a small, full-time professional staff whose members are highly credentialed in the relevant scientific and technical disciplines. The Board reports its findings, conclusions, and recommendations to Congress and the Secretary of Energy. The Chair, other Board members, and professional staff testify before Congress, as requested. Board reports, testimony, and correspondence, along with meeting agendas, transcripts, presentations, webcasts, and public comments, are posted on the Board's website at www.nwtrb.gov.

EFFECTIVE USE OF ANALYTICAL RESOURCES. Board members, with the support of the Board's professional staff, are assigned by the Chair to evaluate DOE activities, in accordance with the Board's legislative mandate. The Board maintains the option of organizing panels and working

groups to help facilitate, integrate, and focus its technical and scientific review, and for other purposes. The Board is authorized by its enabling legislation to hire expert consultants to support in-depth reviews of specific technical topics**.**

TRANSPARENCY. To support its peer review and information gathering activities, the Board holds public meetings at which technical information is presented by representatives of DOE, its contractors, and other organizations involved in nuclear waste management and disposal. At these meetings, Board members and professional staff question presenters, and time is provided for input and comments from interested members of the public. The Board typically holds two or three public meetings per year and announces them on its website and in the *Federal Register* four to six weeks before the meetings are held. The Board continues its goals of transparency of deliberations by webcasting its public meetings and archiving them on the Board's website. In order to continue its review of DOE's activities as effectively as possible, the Board will continue to host its public meetings in the hybrid format (virtual and in-person), unless the virtual option is in the best interest of participant safety and cost savings. The Board also continues to improve its customer experience by ensuring that its electronic reports and other digital products meet the Section 508 requirements of the *Rehabilitation Act*, as amended.

FEDERAL MISSION RESILIENCE (FMR) STRATEGY. The Board has an established continuity of operations plan that implements a proactive posture to minimize disruption in executing the Board's mission. Furthermore, the Board's succession plan enables leadership to ensure the essential functions of the Board continue to be carried out as required in its enabling legislation.

EVALUATION OF BOARD PERFORMANCE IN FY 2024

The Board uses annual evaluations of its performance as input in updating its PGs and MGs for the current year and identifying PGs for the subsequent year. The PGs reflect the objectives of the agency leadership and are outcome oriented. The annual evaluations of the Board's performance are also used as input to the development of the Board's annual budget request.

BOARD PERFORMANCE IN FY 2024 – PERFORMANCE GOALS. The PGs, which are the subject of this evaluation, were listed in the Board's Performance Plan for FY 2024, contained in the Board's FY2024 Budget Request. In the following evaluation, the Strategic Objectives on which the PGs are based are stated followed by a table displaying the associated PGs and the activities undertaken by the Board to accomplish the PGs in FY 2024.

STRATEGIC OBJECTIVE #1: *The Board will continue its evaluation of DOE activities related to implementation of the NWPA and relevant amendments to that Act. Based on its evaluation, the Board will report its findings, conclusions, and recommendations to Congress and the Secretary.*

FY 2023 – 2024 PERFORMANCE GOALS	BOARD ACTIVITIES
PG 1-A: In FY 2023, the Board will hold a public meeting on DOE activities to evaluate the removal of SNF from commercial nuclear power plant sites.	The Board held a public meeting on March 28, 2023, on DOE activities to evaluate the removal of SNF from commercial nuclear power plant sites: March 28, 2023 Meeting. ➢ Following the meeting, the Board issued a letter to DOE, providing its findings and recommendations: August 24, 2023 Board letter
PG 1-B: In FY 2023, the Board plans to hold a public meeting on DOE activities to site and develop a federal interim storage facility for SNF.	The Board held an international workshop and a public meeting August 29-30, 2023, on DOE's consent-based siting process leading to a federal interim storage facility for SNF: August 29, 2023 Workshop August 30, 2023 Meeting ➢ In September 2024, the Board issued workshop proceedings: Proceedings of the 2023 Workshop ➢ Following the public meeting, the Board issued a letter to DOE, providing its findings and recommendations: April 24, 2024 Board letter
PG 1-C: In FYs 2023 through 2024, the Board plans to hold a public meeting on DOE's research and development (R&D) related to the potential for chloride-induced stress corrosion cracking in SNF canisters.	In FY 2024, the Board attended meetings of the Electric Power Research Institute Extended Storage Collaboration Program and the DOE-NE storage and transportation R&D annual program review, where details of DOE-sponsored R&D on the potential for corrosion in SNF canisters were presented. Because DOE has not made significant progress within its corrosion R&D program, the Board decided to postpone a public meeting on this topic and instead conduct additional fact-finding meetings with DOE.

STRATEGIC OBJECTIVE #2: *The Board will develop objective technical and scientific information that will be useful to policy makers in Congress and the Administration on issues related to SNF and HLW management and disposal. The Board will communicate such information to Congress and the Secretary in letters, reports, and testimony.*

FY 2023 – 2024 PERFORMANCE GOALS	BOARD ACTIVITIES
PG 2-A: In FY 2023, the Board will report on the system-wide implications of using large canisters for the dry storage of SNF, with a focus on the potential for direct disposal of those canisters.	In February 2024, the Board issued a report on the system-wide implications of using large canisters for the dry storage of SNF and on DOE R&D efforts regarding the direct disposal of SNF in large canisters: February 2024 Board Report.
PG 2-B: In FY 2023 through 2024, the Board plans to hold a public meeting on the DOE activities related to packaging, drying, and dry storage of DOE-managed SNF, including aluminum-clad SNF.	The Board held a public meeting on August 29, 2024, on the DOE activities related to packaging, drying, and dry storage of DOE-managed SNF and HLW: August 29, 2024 Meeting. ➢ The Board expects to issue a letter regarding the August 2024 meeting in FY 2025.
PG 2-C: In FY 2023 through 2024, the Board will continue to review the technical issues DOE will need to address before it can begin the implementation of an integrated program for the nationwide transport of SNF and HLW.	Members of the Board's staff attended the Annual Transportation Stakeholders Forum during June 3-6, 2024, and the DOE-NE storage and transportation R&D annual program review, July 9-11, 2024, where DOE discussed details of its initiatives related to future transportation of SNF and HLW.

STRATEGIC OBJECTIVE #3*: The Board will compile information and report to Congress and the Secretary on its findings, conclusions, and recommendations from experience gained during 35 years of reviewing the U.S. nuclear waste management and disposal program and from observing waste management efforts in other countries.*

FY 2023 – 2024 PERFORMANCE GOALS	BOARD ACTIVITIES
PG 3-A: In FY 2023 through 2024, the Board will build upon its 2015 report to Congress and the Secretary on selecting a site for a repository and identify recent siting lessons-learned, such as those from Canada and the United Kingdom, that could be applicable to DOE's effort to use a consent-based siting approach for a federal interim storage facility.	In October 2023, the Board visited Canada to meet with the implementer of the Canadian SNF disposal program, the Nuclear Waste Management Organization (NWMO), to discuss siting lessons learned. The Board also visited and interacted with: ➢ the SNF storage facility at the Darlington Nuclear Generating Station ➢ the municipality of South Bruce, Ontario, which is one of two potential host communities for a deep geologic repository for SNF ➢ the NWMO Discovery and Demonstration Center that conducts research on SNF disposal
PG 3-B: In FY 2023 through 2024, the Board will continue its technical information exchange activities with countries such as France, Switzerland, and Finland, where sites for deep geologic repositories for SNF or HLW are being selected, licensed, or constructed.	A member of the Board's staff served as co-chair of a session on geologic disposal of SNF and HLW at the Waste Management 2024 Conference in Phoenix, Arizona. The staff member worked closely with the other co-chair, a representative of BGE Technology GmbH (Germany), to exchange technical information and coordinate the technical session. The Board conducted a detailed technical information exchange with representatives from Finland regarding the Finnish efforts to develop a repository in crystalline rock; the same representatives participated in the Board's public meeting during May 21-22, 2024, to provide updates on the Finnish program (see May 21-22, 2024 Meeting).

PG 3-C: In FYs 2023 through 2024, the Board will continue to monitor activities in other countries related to programs for the management and disposal of SNF and HLW.	In December 2023, a member of the Board's staff attended the Nuclear Energy Agency Workshop on Extended Storage and Transportation of Spent Fuel and Radioactive Waste from Current and Future Reactor Technologies, which included waste management program updates from Germany, France, Sweden, the United Kingdom, and others. In September 2024, the Board completed and posted to its website an informational table showing the progress of nuclear waste repository programs in 13 selected countries. The table can be seen here: Table of repository programs.

BOARD PERFORMANCE IN FY 2024 – MANAGEMENT GOALS. To enhance the effectiveness and efficiency of Board activities supporting its Strategic Objectives and PGs, the Board identified the MGs in the table below for FYs 2023 through 2024:

FY 2024 MANAGEMENT GOALS	BOARD ACTIVITIES
MG-1: The Board will continue to implement actions to optimize organizational efficiency and accountability and maximize employee performance.	In FY 2024, the Board: ➢ proactively evaluated its performance to identify opportunities for improvement; ➢ focused on where needs were greatest to ensure efficient operations; and ➢ evaluated how to achieve the best results.
MG-2: The Board will identify any potential constraints on the agency's ability to perform its mission and implement the changes that may be necessary for mitigating such constraints through proactive management and allocation of resources.	In FY 2024, the Board assessed operational constraints that may affect its ability to achieve its mission and focused attention and resources on addressing and mitigating the constraints.
MG-3: The Board will continue to maintain effective communication among its geographically dispersed Board members. The Board will also facilitate communication between Board members and the professional staff members who support the Board's technical and scientific review of DOE activities from the Board offices in Arlington, Virginia.	In FY 2024, the Board continued to use an electronic drop box to facilitate Board member access to source materials, information write-ups by professional staff, and draft Board documents. The Board continued to hold monthly video teleconferences.
MG-4: The Board will continue webcasting its meetings and making available archived recordings of the webcasts on its website. During the COVID-19 pandemic, the Board will use videoconferencing to hold its meetings in a hybrid format (virtual and in-person), to the extent this can be done without reducing the effectiveness of the meetings concerned.	The Board held two hybrid public meetings in FY 2024 and, in line with its past practices, archived the meetings on the Board's website at www.nwtrb.gov. ➢ May 21-22, 2024 Meeting ➢ August 29, 2024 Meeting

MG-5: The Board will continue to conduct its ongoing reviews in the most cost-effective means possible.	In FY 2024, the Board continued to reduce the demand for printed copies of reports by making electronic versions available for download from its website. Internal documents are coordinated electronically, and the staff will continue transitioning to electronic records.
MG-6: The Board will take action to pass on institutional memory and expertise to succeeding Board members and staff. When appropriate, the Board may also provide opportunities for one or more undergraduates or graduate students in disciplines related to the Board's activities to support the Board's technical staff in performing information research and technical analysis.	In FY 2024, the Board completed briefings by Board members and staff to exchange institutional knowledge and expertise. The Board also hosted several strategic planning meetings to collectively collaborate on future performance and management goals as they relate to the Board's mission. Additional updates and briefings on the Board's mission, the Board's work-in-progress, and plans for future review activities were discussed by Board members and staff at Board business meetings held in conjunction with the Board's public meetings.
MG-7: The Board will update its technical resources and capabilities, as necessary, to maintain and improve the core competencies of its professional staff. The Board will identify, recruit when necessary, and retain highly qualified professionals with the expertise and related knowledge needed to support the work of the Board members and to help the Board achieve its Strategic Objectives and PGs.	In FY 2024, the Board continued to increase the efficiency of its technological resources and capabilities. Key IT systems and programs are continuously updated to take advantage of technological advances. The Board commenced an IT refresh, updating hardware last renewed in 2019.